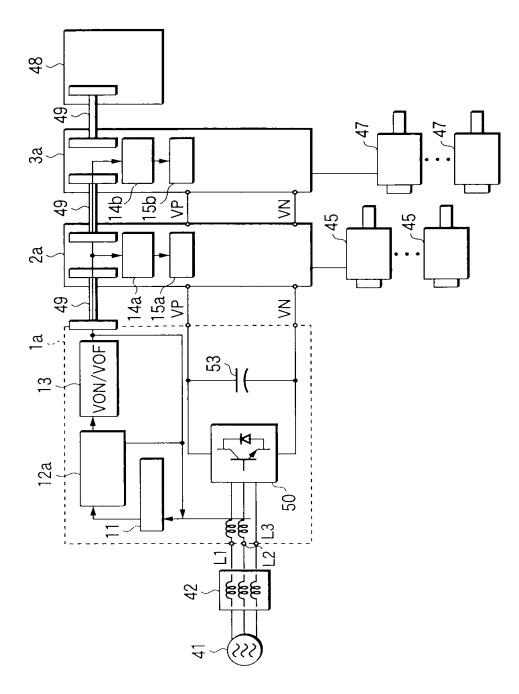
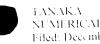
EANAKA NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5 | 2001 Darryl Mexic | (202) 293-7060 1 of 17





NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mettic (202) 293-7060

2/17

FIG.2(a)

INPUT PHASE-TO-PHASE VOLTAGE VAC

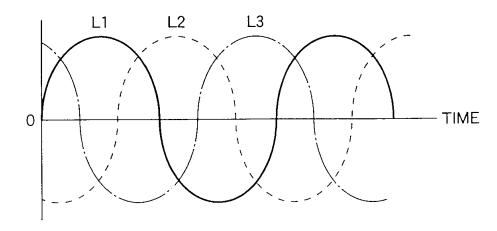


FIG.2(b)

INPUT CURRENT II

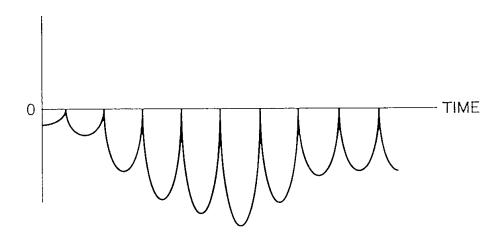


FIG.2(c)

INPUT CURRENT DETECTION PERIOD (CONTROL PERIOD)



3/17

FIG.3(a)

INPUT CURRENT Ii

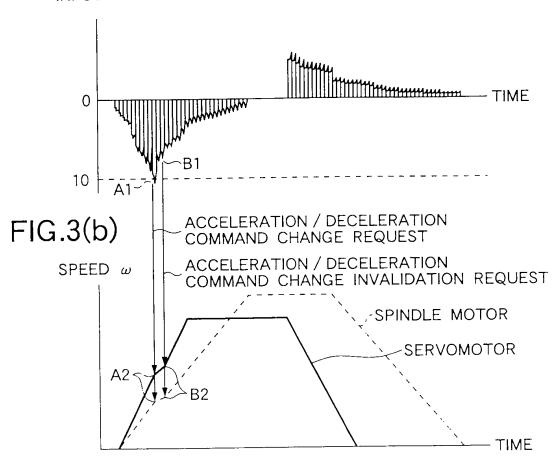
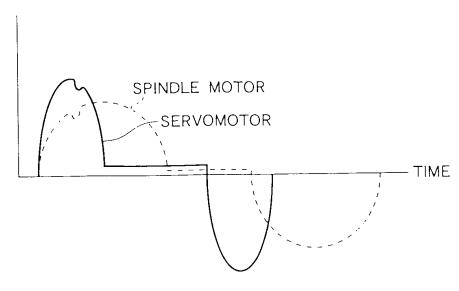
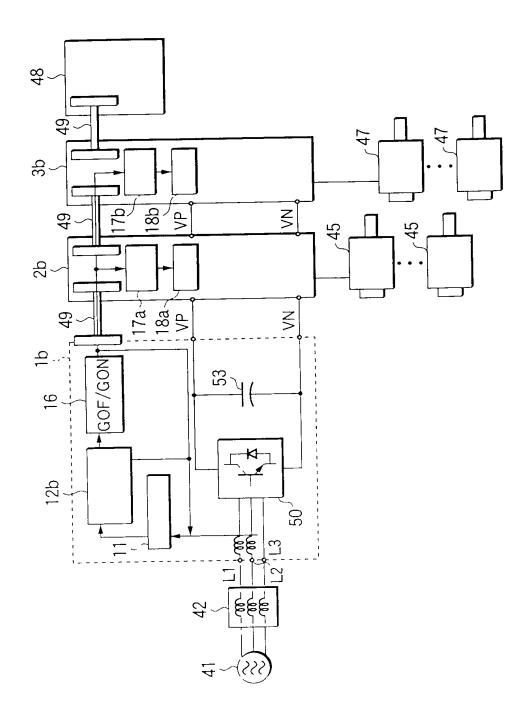


FIG.3(c)

DRIVE CURRENT Id



TACGNKA NUMERICAL CONTROL DRIVE SYSTEM File I: December 5, 2001 Duryl Mexic (202) 293-7060 4 of 17



TANAEA NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2004 Darryl Mexic (202) 293-7060

5/17

FIG.5(a)

INPUT CURRENT Ii

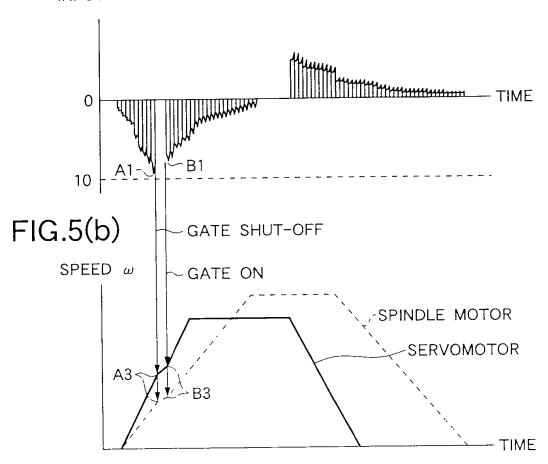
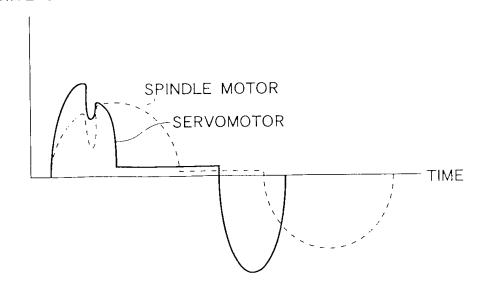


FIG.5(c)

DRIVE CURRENT Id





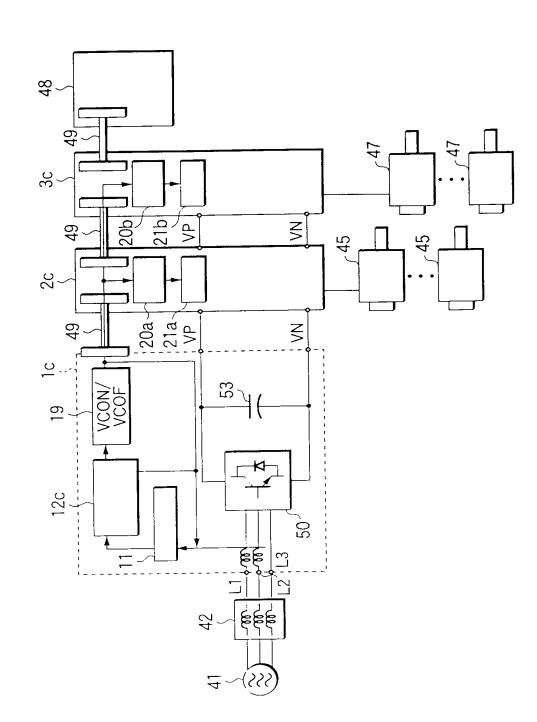


FIG.6

7/17

FIG.7(a)

INPUT CURRENT Ii

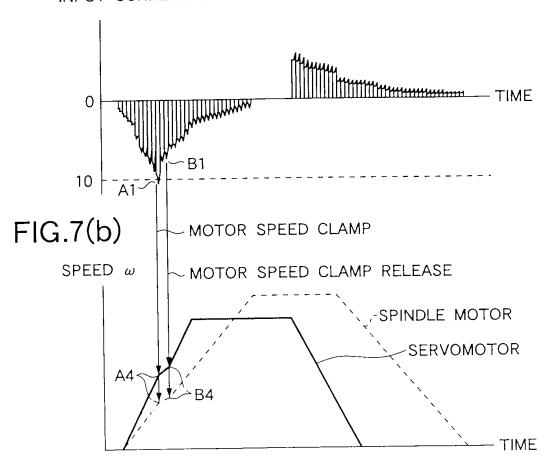
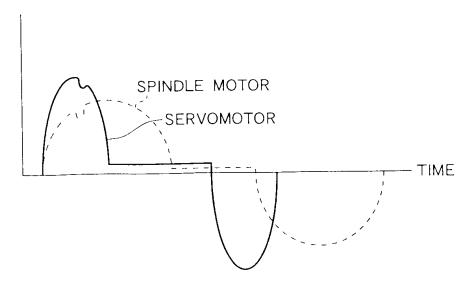
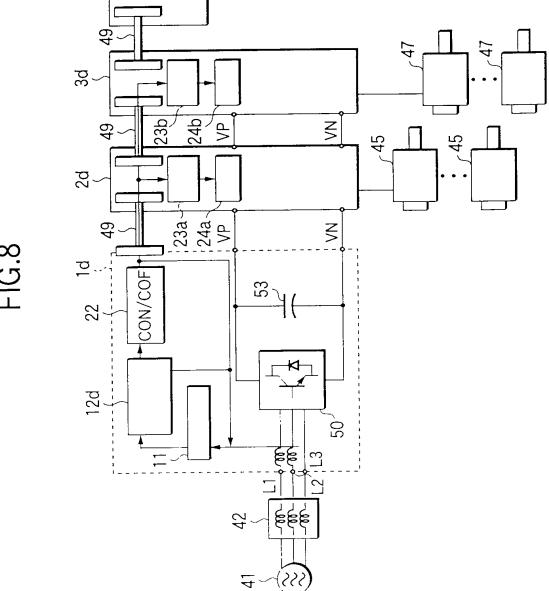


FIG.7(c)

DRIVE CURRENT Id



8/17

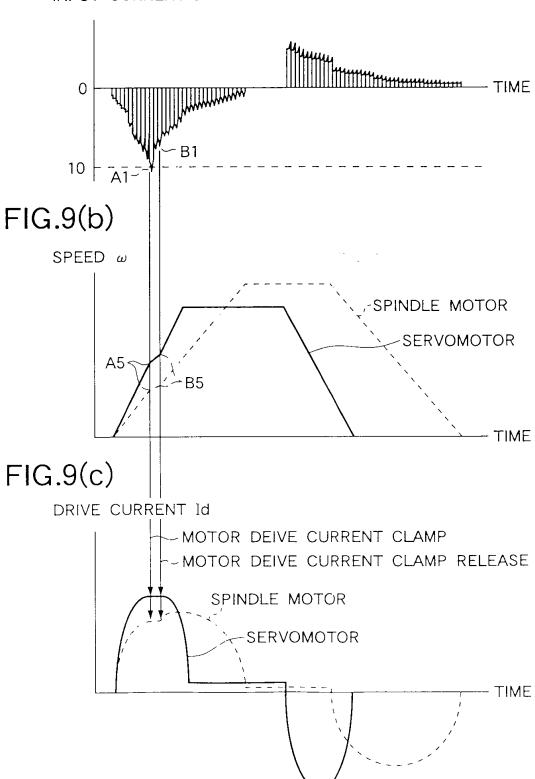


TANAKA NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mexic (202) 293-7060 9 of 17

9/17

FIG.9(a)

INPUT CURRENT II



10/17

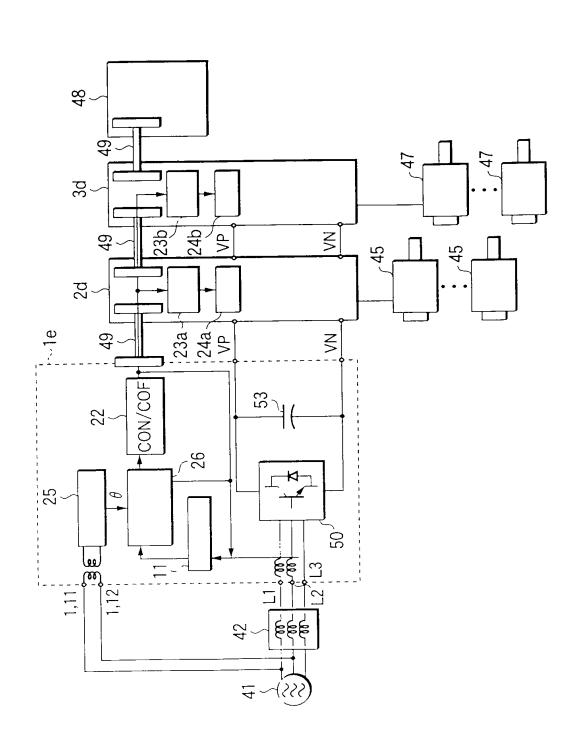


FIG.10

NUMERICAL CONTROL DRIVE SYSTEM Darryl Mexic (202) 293-7060 11 of 17

11/17

FIG.11(a)

INPUT PHASE-TO-PHASE VOLTAGE VAC

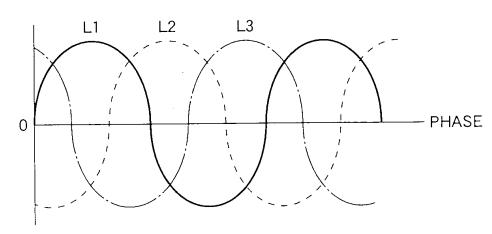
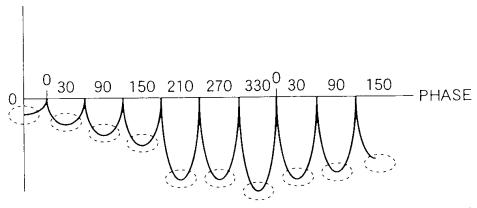


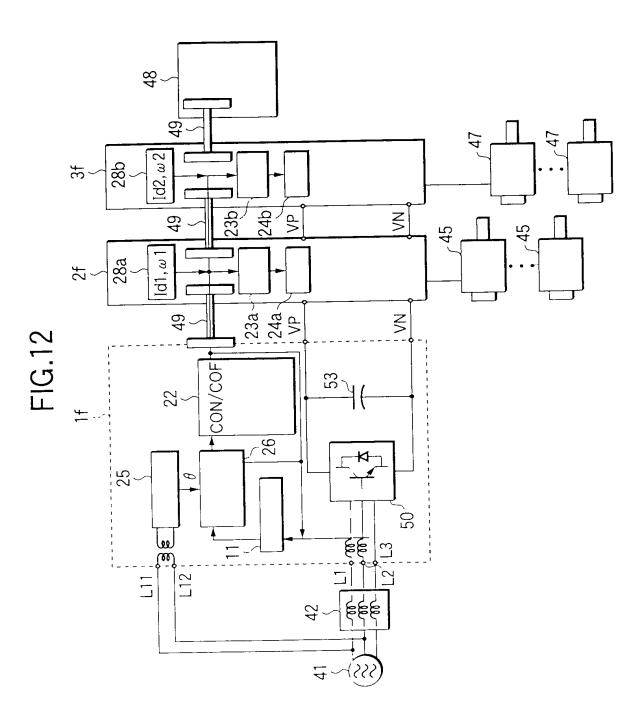
FIG.11(b)

INPUT CURRENT Ii



INPUT CURRENT IS DETECTED ONLY IN THE VICINITY OF PHASE WHERE THE INPUT CURRENT REACHES THE PEAK

TANAKA NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mexic (202) 293-7060 12 of 17



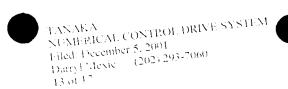
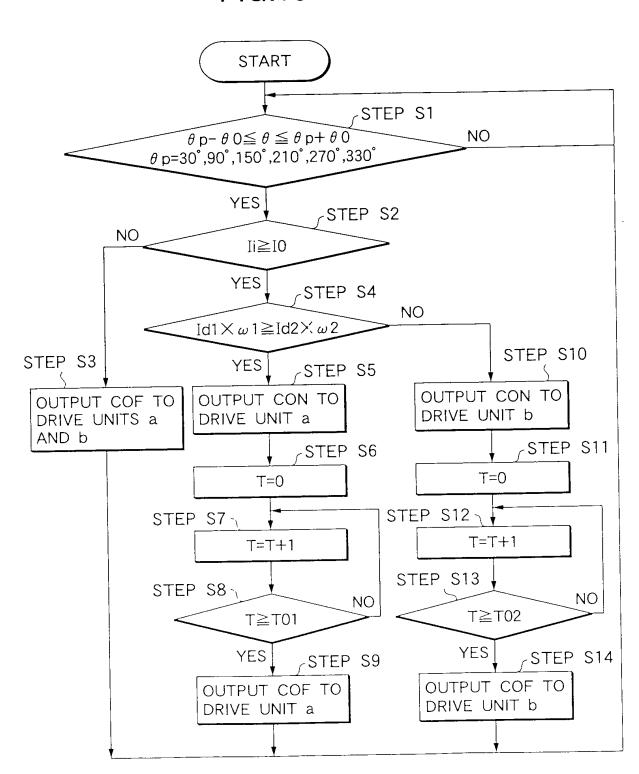
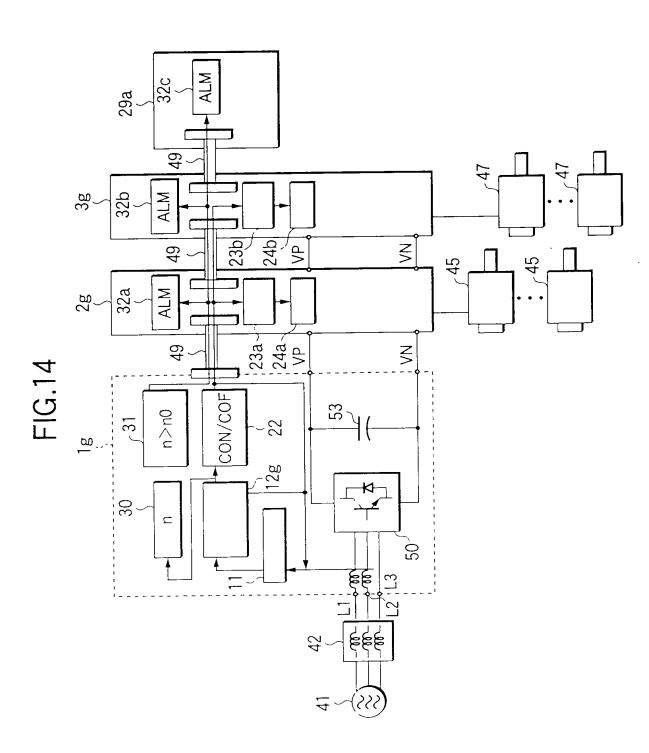


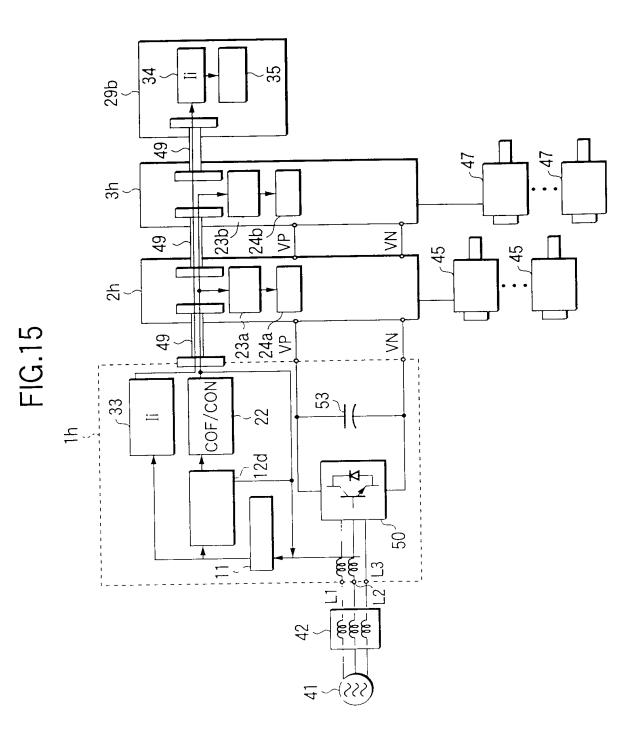
FIG.13



ANAKA UMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mexic (202) 293-7060 14 of 17

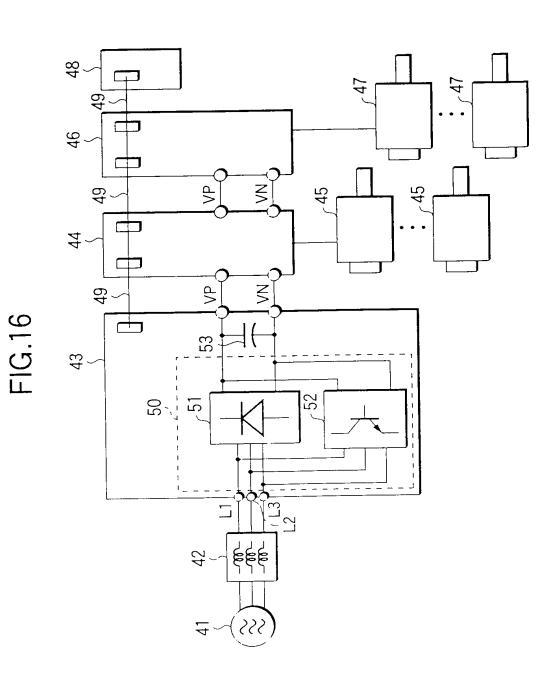


TANAKA NUMEPICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mexic (202) 293-7060 15 of 17



FANAKA NUMERICAL CONTROL DRIVE SYSTEM Filed: December 5, 2001 Darryl Mexic (202) 293-7060 16 of 17

16/17



17 of 17

FIG.17

